Men's health as a public health issue[1]

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As director of the Office *on Women's Health at the US Department of Health and Human Services, my advice for you this morning is, "ask questions." Whatever role you play in the health system, whether you are a patient, researcher, provider, or educator ask questions. Although we know much about the causes of some diseases and the effects of behavioral, social, and genetic risk factors, we know too little about health differences between men and women, between white populations and minority populations. So, I urge each of you to ask questions and get meaningful answers. They could save your life.*

What questions should you ask? Consider those in Table 1. We can't make men's health a priority if we continue to be unwilling to ask questions about how health problems affect men and women differently. The same goes for racial/ethnic minority populations, remembering that men and women also comprise these populations.

The past quarter century of focus on women's health has revealed some tantalizing examples of fundamental differences between men and women, beyond their reproductive tracts. Certain types of painkillers, called kappa opioids, are much more effective in relieving post-operative pain in women than in men receiving the same treatment [1–3]. However, early studies in male rats concluded this class of drugs was ineffective. Basic physiological differences between men and women can influence their reactions to drugs. Women generally have lower body weight and smaller organ sizes and a higher percentage of body fat. Sex differences in drug reactions also can be a result of differences in how men and women process drugs at the molecular level [4,5]. Alcohol is a great example here. Women's livers are smaller, and the enzymatic processes required to metabolize alcohol are somewhat slower in women, but they may differ in more subtle ways. How else can we explain alcohol's contribution to women's risk for breast cancer [6]?

The structure of the brain and the way it functions is different in women and men [7,8]. Given these differences in brain function, we should not be surprised to see sex differences manifest in mental health. Although almost equal numbers of men and women are afflicted with schizophrenia (about 2 million Americans), men typically experience symptoms earlier, with more intensity, and have poorer prognoses than women [9,10]. Depressive disorders afflict almost 10% of the population, but depression is two to three times more common in women as in men [11]. Men have higher levels of serotonin in the blood, a chemical required in the brain for maintaining moods, which may help explain this fact [12]. But we are now recognizing that depression is a serious problem for men. This makes me wonder if the diagnostic criteria are actually normed to women.

Many people consider osteoporosis to be a woman's disease. However, 2 million men in the US have osteoporosis (compared with 8 million women). Millions more men and women have low bone density, placing them at risk for the disease [13].

The National Heart Lung and Blood Institute's ongoing study on cardiovascular disease, the Framingham Study, included women from its inception in 1948. Investigators wanted to understand the natural history of cardiovascular disease and why 1 in 4 men age 55 and older in this town developed heart disease [14,15]. This study began in a time when a good breakfast consisted of potatoes, eggs, and a slab of

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Table 1 Suggested questions for various audiences

WHO should ask	What to ask about sex/gender differences in diseases, drugs, other treatments
Patients	Does this affect me differently because I'm a woman/man?
Providers	Will this affect my female and male patients differently?
Providers-in-training	Does this behave differently in female and male patients?
Scientific reviewers (for journals, funders)	Did the investigators adequately assess whether this affects female and male subjects differently?
Researchers	How does this affect female and male subjects differently?
Review committees (for funders)	Does the study design allow the investigator to explore how this affects female and male subjects differently?

fatty meat: all fried in oil and covered in gravy. We did not know smoking was bad for the heart, that high blood pressure was not a normal part of aging, and that high cholesterol leads to heart disease. Their first published report on heart attack/heart disease declared that women did not experience heart disease. By about 1964, however, they had to update that report because the women in the study had developed heart disease, just 10 years later than men.

I appreciate the discussion of over-diagnosis of prostate cancers. In women's health we are debating ductal carcinoma in situ and lobular carcinoma in situ, commonly diagnosed forms of breast cancer, most of which appear not to metastasize. But right now, we cannot tell which ones will metastasize, so all must go forward for treatment. And like prostate cancer, the treatment and follow-up is neither simple nor easy. Truly we need better tools, both molecular and biochemical, to help us improve the differentiation of these cancers.

Numerous examples exist of differences in health outcomes between and among different populations of men and women. For example, among white men, American Indian/Alaska Native men, and Hispanic/Latino men, chronic liver disease is ranked among the top ten causes of death. But it is not a leading cause of death among Asian/Pacific Islander men nor African American men [16]. Injuries including motor vehicle crashes, homicide, and suicide are among the ten leading causes of death among all men. Yet significant differences occur in the types of fatal injuries across the lifespan, and even more significant differences among racial/ethnic groups and white men and women. At the heart of this may be the culture of being male, of glorifying risky behaviors, of values around power, entitlement, and control. It's not easy being a man, and we are long overdue for a conversation about what is killing you, your sons, brothers, uncles, fathers.

When I reflect on the opportunities to address men's health, I'm most struck by data on the years of potential life lost among men before age 75, a very clear measure of premature mortality. (Years of potential life lost means that if you die at age 50, but as an average person your life expectancy was really 75, you have lost 25 years of potential life.) For the most recent age-adjusted data available to me, 2000, for every 100,000 Americans under 75 years of age, we lost a total of over 7,500 years of life. Heart disease erased over 16% of those years; cancer about 22%; and all injuries over 21% [16].

For every 100,000 men under 75 years of age, we lost over 9,500 years of life, compared to over 5,600 years for women under 75. Among men, injuries, homicide and suicide stole over 2,400 of those years, one fourth of the premature mortality! By comparison, women lost just over 800 years to injuries, homicide and suicide: only one-third the loss suffered by men. Heart disease stole over 1,700 years from men, and less than half that number from women, compared to cancer, which claimed over 1,800 and over 1,500 years, respectively [16].

The gap in life expectancy between men and women–now about 5 years–is explained by the dominance of premature death from injury, and secondarily, by heart disease. Sadly, we may never close the gap entirely. One hundred years ago, our best data tell us there was about a 2-year difference (Robert Hahn, personal communication, December 2001) substantially

less than we see now. And men have benefited greatly from the gains in health research, particularly on heart disease, as their death rates from this cause have declined precipitously: half as many years of potential life lost now compared to 20 years ago, as women gained only about a third of those years. The decline in men's smoking rates probably is the most important factor here; women's smoking rates peaked in the 1970s and have only now returned to about 23%. But, as women, our heart attacks and lung cancers are still problems we too often fail to recognize.

We continue to benefit from collecting data on diseases, behaviors and conditions that affect our health. My office, the Office on Women's Health, in collaboration with the Office of Minority Health, has released the first-ever data warehouse containing extensive US health data at the county and state level by age, race/ethnicity, and sex. It includes information on a variety of chronic and infectious diseases, including heart disease and indicators for mental health, reproductive health, maternal health, violence and abuse, illness prevention, and access to care. For those of you who work with data, you know how hard it can be to obtain health statistics at the local level. Including male data allows us to closely examine health disparities by sex and by race/ethnicity. The data warehouse will be available online this fall, and a link to it will be available through our website, http://www.4woman.gov/.

We have so much to learn about our health, from understanding basic biological differences between the sexes, to translating these findings into clinical practice, to increasing access to health services for all men, women and children. We will all benefit from these efforts.

I encourage men to learn from what we have not been able to accomplish yet in women's health: to drive the questions completely through the health care system, along the complete continuum of discovery, development, and delivery. Ask the questions, demand answers!

Acknowledgement

Examples of sex differences, unless otherwise noted, were found on the Society for Women's Health Research web site, http://www.womens-health.org/.

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